

APPENDIX N HAZARDOUS MATERIALS

SUMMARY OF FEDERAL APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARs)

ARARs may be either “applicable” or “relevant and appropriate” to reclamation activities at a site, but not both. Applicable requirements are those standards, requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that specifically address hazardous substances, pollutants, contaminants, activities, locations, or other circumstances found at the site. The reclamation activities should satisfy all the jurisdictional prerequisites of a requirement for them to be applicable to the specific activity at a site.

Relevant and appropriate requirements are those standards, requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that, while not applicable to hazardous substances, pollutants, contaminants, activities, locations, or other circumstances at a site, address problems or situations sufficiently similar to those encountered at a site that their use is well suited to a particular site. Factors which may be considered in making this determination, when the factors are pertinent, are presented in 40 CFR 300.400(g)(2). They include, among other considerations, examination of the purpose of the requirement and of the proposed activity, the medium and substances regulated by the requirement, the regulated actions or activities, and the potential use of resources affected by the requirement. ARARs are divided into contaminant-specific, location-specific, and action-specific requirements. Contaminant-specific requirements govern the release of materials possessing certain chemical or physical characteristics or containing specific chemical compounds to the environment. Contaminant-specific ARARs generally set human or environmental risk-based criteria and protocol which, when applied to site-specific conditions, result in the establishment of numerical action values. These values establish the acceptable amount or concentration of a chemical that may be found in, or discharged to, the ambient environment.

Location-specific ARARs relate to the geographic or physical position of the site, rather than to the nature of site contaminants. These ARARs place restrictions on the concen-

tration of hazardous substances or the conduct of cleanup activities due to their location in the environment.

Action-specific ARARs are usually technology- or activity-based requirements or are limitations on actions taken with respect to hazardous substances. A particular activity will trigger an action-specific ARAR. Unlike chemical-specific and location-specific ARARs, action-specific ARARs do not, in themselves, determine the reclamation alternative. Rather, action-specific ARARs indicate how the selected reclamation activity should be completed.

Nonpromulgated advisories or guidance documents issued by federal or state governments do not have the status of potential ARARs. However, these advisories and guidance are “to be considered” (TBC) when determining protective cleanup levels, as defined in 40 CFR 300.400 (g)(3). The TBC category consists of advisories, criteria, or guidance that were developed by the EPA, other federal agencies, or states that may be useful in developing reclamation alternatives.

Only those state standards that are more stringent than any federal standard and that have been identified by the state are appropriately included as ARARs. Duplicative or less stringent standards are deleted as appropriate when the final determination of ARARs is presented.

ARARs are defined as only federal environmental laws and state environmental or facility siting laws. The reclamation activities and operation and maintenance must, nevertheless, comply with all other applicable laws, both state and federal. Many such laws, while not strictly environmental or facility siting laws, have environmental impacts. Moreover, applicable laws that are not ARARs because they are not environmental or facility siting laws, are not subject to the ARAR waiver provisions; the applicable provisions of such laws must be observed. A separate list attached to the state ARARs list is a noncomprehensive identification of other state law requirements which must be observed during reclamation activities, operation, and maintenance.

SUMMARY OF FEDERAL APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS		
<i>Standard, Requirement Criteria, or Limitation</i>	<i>Citation</i>	<i>Description</i>
<u>Clean Air Act</u>	42 USC § 7409	
National Primary and Secondary Ambient Air Quality Standards	40 CFR Part 50	Air quality levels that protect public health.
<u>Resource Conservation and Recovery Act</u> Lists of Hazardous Wastes	40 CFR Parts 261, Subpart D	Defines those solid mining-related wastes which are subject to regulation as hazardous wastes under 40 CFR Parts 262-265 and Parts 124, 270, and 271.
<u>Clean Water Act</u>	33 USC § 1251-1387	Chapter 26-Water Pollution Prevention and Control.
Water Quality Standards	40 CFR Part 131 Quality Criteria for Water 1976, 1980, 1986	Sets criteria for water quality based on toxicity to aquatic organisms and human health.
National Pollutant Discharge Elimination System (NPDES)	40 CFR Part 122	General permits for discharge from construction.
<u>Safe Drinking Water Act</u>	40 USC § 300	
National Primary Drinking Water Regulations	40 CFR Part 141	Establishes health-based standards for public water systems (maximum contaminant levels).
National Secondary Drinking Water Regulations	40 CFR Part 143 Establishes welfare-based	standards for public water systems (secondary maximum contaminant levels).
Location-Specific		
<u>National Historic Preservation Act</u>	16 USC § 470; 36 CFR Part 800 40 CFR 6.310(b)	Requires federal agencies to take into account the effect of any federally assisted undertaking or licensing on any district, site, building, structure, or object that is included in, or eligible for, inclusion in the National Register of Historic Places. To minimize harm to any national historic landmark adversely or directly affected by an undertaking.
<u>Archeological and Historic Preservation Act</u>	16 USC § 469; 40 CFR 6.301(c)	Establishes procedures to provide for preservation of historical and archeological data, which might be destroyed through alteration of terrain as a result of a federal construction project or a federally licensed activity or program.
<u>Historic Sites, Buildings, and Antiquities Act</u>	16 USC § 461 through 467; 40 CFR § 6.301(a)	Requires federal agencies to consider the existence and location of landmarks on the National Registry of Natural Landmarks to avoid undesirable impacts on such landmarks.
<u>Protection of Wetlands Order</u>	40 CFR Part 6	Avoid adverse impacts to wetlands.

<u>Endangered Species Act</u>	16 USC § 1531(h) through 1543; 40 CFR Part 6.302; 50 CFR Part 402	Requires action to conserve endangered species within critical habitat upon which species depend. Activity may not jeopardize continued existence of endangered species or destroy or adversely modify a critical habitat. Includes consultation with the Department of the Interior.
<u>Resource Conservation and Recovery Act</u>	40 CFR Part 264	Require hazardous waste facilities to be (1) located at least 200 feet from a fault, and (2) designed to withstand a 100-year flood if located in the 100-year flood plain.
Action-Specific		
<u>Hazardous Materials Transportation Act</u>	49 USC § 1801-1813	
Standards Applicable to Transport of Hazardous Materials	49 CFR Parts 10, 171 through 177	Regulates transportation of hazardous materials including mining wastes that are not exempt under the Bevill Amendment.
<u>Resource Conservation and Recovery Act</u>		
Criteria for Classification of Solid Waste Disposal Facilities and Practices	40 CFR Part 257	Establishes criteria for use in determining which solid waste disposal facilities and practices pose a reasonable probability of adverse effects on health or the environment and, thereby, constitute prohibited open dumps.
Standards Applicable to Transporters of Hazardous Waste	40 CFR Part 263	Establishes standards which apply to persons transporting hazardous waste within the United States if the transportation requires a manifest under 40 CFR Part 262.
Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities	40 CFR Part 264	Establishes minimum national standards, which define the acceptable management of hazardous waste for owners and operators of facilities, which treat, store, or dispose of hazardous waste.
<u>Clean Water Act</u>	33 USC § 1342	
National Pollutant Discharge Elimination System	40 CFR Part 122	Requires permits for the discharge of pollutants from any point source into waters of the United States.
<u>Surface Mining Control and Reclamation Act</u>	30 USC § 1201 through 1326 30 CFR Part 816; 30 CFR Part 784	Protects the environment from effects of surface coal mining operations.

SUMMARY OF STATE APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS		
<i>Standard, Requirement Criteria, or Limitation</i>	<i>Citation</i>	<i>Description</i>
<u>Montana Water Quality Act</u>	§ 75-5-101 <i>et seq.</i> , MCA ARM 17.30.601 <i>et seq.</i> ARM 17.30.637	Promulgates regulations to protect, maintain, and improve the quality of surface waters in the state. Montana's regulations classify state waters according to quality, place restrictions on the discharge of pollutants to state waters, and prohibit degradation of state waters. Provides that surface water must be free of substances attributable to industrial practices or other discharges that will: (a) settle to form objectionable sludge deposits or emulsions beneath the surface of the water or upon adjoining shorelines; (b) create floating debris, scum, a visible oil film (or be present in concentrations at or in excess of 10 milligrams per liter) or globules of grease or other floating materials; (c) produce odors, colors or other conditions which create a nuisance or render undesirable taste to fish flesh or make fish inedible; (d) create concentrations or combinations of materials which are toxic or harmful to human, animal, plant or aquatic life; (e) create conditions which produce undesirable aquatic life. In addition, no waste may be discharged and no activities conducted which, either along or in combination with other waste activities, will cause violation of surface water quality standards; provided a short term exception from a surface water quality standard may be authorized by the department under certain conditions.
<u>Montana Groundwater Pollution Control System</u>	ARM 17.30.1006 ARM 17.30.1011	Classifies groundwater into Classes I through IV based upon its specific conductance and establishes the groundwater quality standards applicable with respect to each groundwater Classification. If determined to be Classes I through III groundwater based on its specific conductance, the groundwater at the site must meet the beneficial uses and standards for that class. Concentrations of substances in groundwater within these classes may not exceed the human health standards for groundwater listed in department Circular WQB-7. In addition, no increase of a parameter may cause a violation of § 75-5-303 MCA, (nondegradation). For concentrations of parameters for which human health standards are not listed in WQB-7, ARM 17.30.1006 allows no increase of a parameter to a level that renders the waters harmful, detrimental or injurious to the beneficial uses listed for that class of water. For standards for Class IV groundwater, see ARM 17.30.1006. Provides that any groundwater whose existing quality is higher than the standard for its classification must be maintained at that high quality in accordance with § 75-5-303 MCA, and ARM Title 17, Chapter 30, Subchapter 7.

Air Quality Regulations	ARM 17.8.206	Establishes sampling, data collection and analytical requirements to ensure compliance with ambient air quality standards.
	ARM 17.8.220	Settled particulate matter shall not exceed a thirty (30) day average of 10 grams per square meter.
	ARM 17.8.222	Lead emissions to ambient air shall not exceed a ninety (90) day average of 1.5 micrograms per cubic liter of air.
	ARM 17.8.223	PM-10 concentrations in ambient air shall not exceed a 24 hour average of 150 micrograms per cubic meter of air and an annual average of 50 micrograms per cubic meter of air.
	ARM 17.8.210 – 214	Ambient air standards are also promulgated for carbon dioxide, hydrogen sulfide, nitrogen dioxide, sulfur dioxide, and ozone. If emissions of these compounds were to occur at the site in connection with any response action, these standards would also be applicable.
Location-Specific		
Endangered Species	§§ 87-5-106, 107, and 111, MCA	Endangered species should be protected in order to maintain and, to the extent possible, enhance their numbers. These sections list endangered species, prohibited acts, and penalties.
	§§ 87-5-106 and 201, MCA	Describes protection of wild birds, nests, and eggs.
	ARM 12.5.201	Lists certain activities that are prohibited with respect to specified endangered species.
<u>Montana Flood Plain and Floodway Management Act and Regulations</u>	§ 76-5-401, <i>et seq.</i> , MCA ARM 36.15.601	Specifies types of uses and structures that are allowed or prohibited in the designated 100-year floodway and floodplain. Uses prohibited anywhere in either the floodway or the floodplain are: (1) solid and hazardous waste disposal; and (2) storage of toxic, flammable, hazardous, or explosive materials.
	ARM 36.15.605(2), 36.15.703, and 36.15.602(5)(b)	These provisions effectively prohibit the placement of mine waste repositories within the 100-year floodplain and require that mine wastes addressed in response actions be removed from the floodplain. In the floodway, additional provisions apply, including prohibition of: (1) a building for living purposes or place of assembly or permanent use by human beings; (2) any structure or excavation that will cause water to be diverted from the established floodway, cause erosion, obstruct the natural flow of water, or reduce the carrying capacity of the floodway; and (3) the construction or permanent storage of an object subject to flotation or movement during flood level periods.
	§ 76-5-402, MCA	Specifies factors that must be considered in allowing diversions of the stream, changes in place of diversion of the stream, flood control works, new construction or alteration of artificial obstructions, or any other nonconforming use within the floodplain or floodway.

<u>Montana Flood Plain and Floodway Management Act and Regulations</u> (continued)	§ 76-5-406, MCA ARM 36.15.216	<p>Conditions or restrictions that generally apply to specific activities within the floodway or floodplain are: (1) the proposed activity, construction, or use cannot increase the upstream elevation of the 100-year flood a significant amount or significantly increase flood velocities; and (2) the proposed activity, construction, or use must be designated and constructed to minimize potential erosion.</p>
	Miscellaneous	<p>For the substantive conditions and restrictions applicable to specific obstructions or uses, see the following applicable regulations:</p> <p>Excavation of material from pits or pools – ARM 36.15.602(1) Water diversions or changes in place of diversion – ARM 36.15.603 Flood control works (levees, floodwalls, and riprap must comply with specified safety standards) – ARM 36.15.606 Road, streets, highways and rail lines (must be designed to minimize increases in flood heights) – ARM 36.15.701(3)(c). Structures and facilities for liquid or solid waste treatment and disposal (must be floodproofed to ensure that no pollutants enter flood waters and may be allowed and approved only in accordance with DEQ regulations, which include certain additional prohibitions on such disposal) – ARM 36.15.701(3)(d). Residential structures – ARM 36.15.702(1) Commercial or industrial structures – ARM 36.15.702(2)</p>
<u>Montana Natural Streambed and Land Preservation Act</u>	§ 75-7-102, MCA and ARM 36.2.405, 406, and 410 ARM 36.2.410	<p>Applicable is a response action alters or affects a streambed or its banks. The adverse effects of any such action must be minimized.</p> <p>Establishes minimum standards which would be applicable if a response action alters or effects a streambed, including any channel change, new diversion, riprap or other streambank protection project, jetty, new dam or reservoir or other commercial, industrial, or residential development.</p>

<u>Montana Solid Waste Management Act</u>	§ 75-10-201, et seq., MCA and ARM 17.50.505(1)	Regulations promulgated under the Solid Waste Management Act, § 75-10-201 et seq., MCA, specify requirements that apply to location of any solid waste management facility.
	ARM 17.50.505	Provides that a facility for the treatment, storage or disposal of solid wastes: (1) must be located where sufficient acreage of suitable land is available for solid waste management; (2) may not be located in a 100-year floodplain; (3) may be located only in areas which will prevent the pollution of ground and surface waters and public and private water supply systems; (4) must be located to allow for reclamation and reuse of the land; (5) drainage structures must be installed where necessary to prevent surface runoff from entering waste management areas; and (6) where underlying geological formations contain rock fractures or fissures which may lead to pollution of the ground water or areas in which springs exist that are hydraulically connect to a proposed disposal facility, only Class III disposal facilities (those containing completely inert wastes) may be approved.
	§ 75-10-212, MCA	Prohibits dumping or leaving any debris or refuse upon or within 200 yards of any highway, road, street, or alley of the state or other public property, or on privately owned property where hunting, fishing, or other recreation is permitted. However, the restriction relating to privately owned property does not apply to the owner, his agents, or those disposing of debris or refuse with the owner's consent.
<u>Groundwater Act</u>	MCA § 85-2-505	Precludes the wasting of groundwater. Any well producing waters that contaminate other waters must be plugged or capped, and wells must be constructed and maintained so as to prevent waste, contamination, or pollution of groundwater.
	MCA § 85-2-516	States that within 60 days after any well is completed, a well log report must be filed by the driller with the DNRC and the appropriate county clerk and recorder.
	ARM 17.30.641	Provides standards for sampling and analysis of water to determine quality.
	ARM 17.30.646	Requires that bioassay tolerance concentrations be determined in a specified manner.
	ARM 36.21.670-678 and 810	Specifies certain requirements that must be fulfilled when abandoning monitoring wells.
Montana Pollutant Discharge Elimination System (MPDES) Permit Requirements	ARM 17.30.1342-1344	Sets forth the substantive requirements to all MPDES and NPDES permits. The substantive requirements, including the requirement to properly operate and maintain all facilities and systems of treatment and control are applicable requirements.
Technology-Based Treatment	ARM 17.30.1203 and 1344	Technology based treatment for MPDES permits.

Montana Water Quality Act – Causing of Pollution	§ 75-5-605(1)(a), MCA	Prohibits the causing of pollution of any state waters. Pollution is defined as contamination or other alteration of physical, chemical, or biological properties of state waters which exceed that permitted by the water quality standards. Also, it is unlawful to place or caused to be placed any wastes where they will cause pollution of state waters.
Nondegradation of Water Quality	§ 75-5-303, MCA	States that existing uses of state waters and the level of water quality necessary to protect the users must be maintained and protected.
	§ 75-5-317, MCA	Provides an exemption from nondegradation requirements which allows changes of existing water quality resulting from an emergency or remedial activity that is designed to protect the public health or environment and that is approved, authorized, or required by the department. Degradation meeting these requirements may be considered nonsignificant. In determining that remedial actions are protective of public health and the environment and in approving, authorizing, or requiring such remedial activities, no significant degradation should be approved.
	17.30.705	Provides that for any surface water, existing and anticipated uses and the water quality necessary to protect these uses must maintained and protected unless degradation is allowed under the nondegradation rules at ARM 17.30.708.
	17.30.1011	Provides that any groundwater whose existing quality is higher than the standard for its classification must be maintained at that high quality unless degradation may be allowed under the principles established in § 75-5-303, MCA, and the nondegradation rules at ARM 17.30.701, <u>et seq.</u>
Storm Water Runoff	ARM 17.30.1332 and 1341	Requires a Storm Water Discharge General Permit for storm water point sources. Generally, the permits require the permittee to implement Best Management Practices (BMP) and to take all reasonable steps to minimize or prevent any discharge which has a reasonable likelihood of adversely affecting human health and the environment. However, if there is evidence indicating potential or realized impacts on water quality due to any storm water discharge associated with the activity, additional protection may be required.
	ARM 17.24.633	All surface drainage from a disturbed area must be treated by the best technology available.

Storm Water Runoff (continued)	ARM 17.30.637	Prohibits discharges containing substances that will: (a) settle to form objectionable sludge deposits or emulsions beneath the surface of the water or upon adjoining shorelines; (b) create floating debris, scum, a visible oil film (or be present in concentrations at or in excess of 10 milligrams per liter) or globules of grease or other floating materials; (c) produce odors, colors or other conditions which create a nuisance or render undesirable taste to fish flesh or make fish inedible; (d) create concentrations or combinations of materials which are toxic or harmful to human, animal, plant or aquatic life; (e) create conditions which produce undesirable aquatic life.
<u>Montana Hazardous Waste Act – State RCRA Subtitle C Requirements</u>	§ 75-10-401 <u>et seq.</u> , MCA and ARM Title 17, Chapter 54	Establishes a regulatory structure for the generation, transportation, treatment, storage, and disposal of hazardous wastes.
<u>Montana Solid Waste Act – State RCRA Subtitle D Requirements</u>	§ 75-10-201 <u>et seq.</u> , MCA	Establishes requirements that are applicable to the management and disposal of solid wastes, including mine wastes at sites that are not currently subject to operating permit requirements.
	ARM 17.50.505	Sets forth standards that all solid waste disposal sites must meet, including the requirements that (1) Class II landfills must confine solid waste and leachate to the disposal facility. If there is the potential for leachate migration, it must be demonstrated that leachate will only migrate to underlying formations which have no hydraulic continuity with any state waters; (2) adequate separation of group II wastes from underlying or adjacent water must be provided; and (3) no new disposal units or lateral expansions may be located in wetlands. This section also specifies general soil and hydrogeologic requirements pertaining to the location of any solid waste management facility.
	ARM 17.50.506	Specifies design requirements for landfills. Landfills must either be designed to ensure that MCLs are not exceeded or the landfill must contain a composite liner and leachate collection system which comply with specified criteria.
	ARM 17.50.511	Set forth general operational and maintenance and design requirements for solid waste facilities using land filling methods. Specific operational and maintenance requirements specified in this section that are applicable are run-on and run-off control systems requirements, requirements that sites be fenced to prevent unauthorized access, and prohibitions of point source and nonpoint source discharges which would violate Clean Water Act requirements.
	ARM 17.50.523	Specifies that solid waste must be transported in such a manner as to prevent its discharge, dumping, spilling or leaking from the transport vehicle.

<u>Montana Solid Waste Act – State RCRA Subtitle D Requirements</u> (continued)	ARM 17.50.530	Sets forth the closure requirement for landfills. Class II landfills must meet the following criteria: (1) install a final cover that is designed to minimize infiltration and erosion; (2) design and construct the final cover system to minimized infiltration through the closed unit by the use of an infiltration layer that contains a minimum of 18 inches of earthen material and has a permeability less than or equal to the permeability of any bottom liner, barrier layer, or natural subsoils or a permeability of no greater than 1×10^{-5} cm/sec, whichever is less; (3) minimize erosion of the final cover by the use of a seed bed layer that contains a minimum of six inches of earthen material that is capable of sustaining native plant growth and protecting the infiltration layer from frost effects and rooting damage; and (4) revegetate the final cover with native plant growth within one year of placement of the final cover.
	ARM 17.50.531	Sets forth post closure care requirements for Class II landfills. Post closure care must be conducted for a period sufficient to protect human health and the environment. Post closure care requires maintenance of the integrity and effectiveness of any final cover, including making repairs to the cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the cover and comply with the groundwater monitoring requirements found at ARM Title 17, Chapter 50, Subchapter 7.
	§ 75-10-206, MCA	Allows variances to be granted from certain solid waste regulations if failure to comply with the rules does not result in danger to public health and safety or compliance with specific rules would produce hardship without producing benefits to the health and safety of the public that outweigh the hardship.
<u>Montana Strip and Underground Mine Reclamation Act and Montana Metal Mining Act</u>	§ 82-4-201 et seq., MCA and § 82-4-301 et seq., MCA	Certain portions of the following statutory or regulatory provisions are relevant and appropriate requirements.
	§ 84-2-231, MCA	Requires operators to reclaim and revegetate affected lands using most modern technology available. Operators must grade, backfill, topsoil, reduce high walls, stabilize subsidence, control water, minimize erosion, subsidence, land slides, and water pollution.
	§ 84-2-233, MCA	Operators must plant vegetation that will yield a diverse, effective, and permanent vegetative cover of the same seasonal variety native to the area and capable of self-generation.

<u>Montana Metal Mine Reclamation Act</u>	§ 82-4-336, MCA	Disturbed areas must be reclaimed to utility and stability comparable to areas adjacent.
	ARM 17.24.501(3)(a) and (d) and (4)	Backfill must be placed so as to minimize sedimentation, erosion, and leaching of acid or toxic materials into waters, unless otherwise approved.
	ARM 17.24.501 (A)(1)(a) and (2)	Final graded slopes will be 5:1 unless otherwise approved. If steeper, slopes must have a long term static safety factor of 1:3, not to exceed the angle of repose unless the existing grade of the area is steeper, in which case the existing grade meets this requirements. Disturbed areas must be blended with undisturbed ground to provide a smooth transition in topography.
	ARM 17.24.514	Final grading will be done along the existing contour in order to minimize subsequent erosion and instability, unless otherwise approved.
	ARM 17.24.519	Pertinent areas where excavation will occur will be regarded to minimize settlement.
	ARM 17.24.631(1), (2), (3)(a), and (b)	Disturbances to the prevailing hydrologic balance will be minimized. Changes in water quality and quantity, in the depth to groundwater and in the location of surface water drainage channels will be minimized, to the extent consistent with the selected response alternatives. Other pollution minimization devices must be used if appropriate, including stabilizing disturbed areas through land shaping, diverting runoff, planting quickly germinating and growing stands of temporary vegetation, regulating velocity of water, lining drainage channels with rock or vegetation, mulching, and control of acid-forming, and toxic-forming waste materials.
	ARM 17.24.633	Surface drainage from a disturbed area must be treated by the best technology currently available (BCTA). Treatment must continue until the area is stabilized.
	ARM 17.24.634	Disturbed drainages will be restored to the approximate pre-disturbance configuration, to the extent consistent with the selected response alternatives. Drainage design must emphasize channel and floodplain dimensions that approximate the pre-mining configuration and that will blend with the undisturbed drainage above and below the area to be reclaimed. The average stream gradient must be maintained with a concave longitudinal profile. This regulation provides specific requirements for designing the reclaimed drainage to: (1) meander naturally; (2) remain in dynamic equilibrium with the system; (3) improve unstable pre-mining conditions; (4) provide for floods; and (5) establish a pre-mining diversity of aquatic habitats and riparian vegetation.
	ARM 17.24.635 – 637	Sets forth requirements for temporary and permanent diversions.

<u>Montana Metal Mine Reclamation Act</u> (continued)	ARM 17.24.638	Sediment control measures must be implemented during operation.
	ARM 17.24.639	Sets forth requirements for construction and maintenance of sedimentation ponds.
	ARM 17.24.640	Discharges from sedimentation ponds, permanent and temporary impoundments, must be controlled to reduce erosion and enlargement of stream channels, and to minimize disturbance of the hydrologic balance.
	ARM 17.24.641	Practices to prevent drainage of acid or toxic forming spoil material into ground and surface water will be employed.
	ARM 17.24.643 – 646	Provisions for groundwater protection, groundwater recharge protection, and groundwater and surface water monitoring.
	ARM 17.24.701 and 702	Requirements for redistributing and stockpiling of soil for reclamation. Also outlines practices to prevent compaction, slippage, erosion, and deterioration of biological properties of soil will be employed.
	ARM 17.24.703	When using materials other than, or along with, soil for final surfacing in reclamation, the operator must demonstrate that the material (1) is at least as capable as the soil of supporting the approved vegetation and subsequent land use, and (2) the medium must be the best available in the area to support vegetation.
	ARM 17.24.711	Requires that a diverse, effective and permanent vegetative cover of the same seasonal variety and utility as the vegetation native to the area of land to be affected must be established.
	ARM 17.24.713	Seeding and planting of disturbed areas must be conducted during the first appropriate period for favorable planting after final seedbed preparation but may not be more that 90 days after soil has been replaced.
	ARM 17.24.714	Mulch and cover crop or both must be used until adequate permanent cover can be established.
	ARM 17.24.716	Establishes method of revegetation.
	ARM 17.24.717	Relates to the planting of trees and other woody species if necessary to establish a diverse, effective, and permanent vegetative cover of the same seasonal variety native to the affected area and capable of self-generation and plant succession at least equal in extent of cover to the natural vegetation of the area, except that introduced species may be used in the revegetation process were desirable and necessary to achieve the approved intended land use plan.
	ARM 17.24.718	Requires soil amendments, irrigation, management, fencing, or other measures, if necessary, to establish a diverse and permanent vegetative cover.

<u>Montana Metal Mine Reclamation Act</u> (continued)	ARM 17.24.721	Specifies that rills or gullies deeper than nine inches must be stabilized. In some instances shallower rills and gullies must be stabilized.
	ARM 17.24.723	States that operators shall conduct approved periodic measurements of vegetation, soils, water, and wildlife during the period of liability.
	ARM 17.24.724	Specifies that revegetation success must be measured by approved unmined reference areas. There shall be at least one reference area for each plant community type. Required management for these reference areas is set forth.
	ARM 17.24.726	Sets the required methods for measuring productivity.
	ARM 17.24.728	Sets requirements for measurements of permanence of vegetation on reclaimed areas.
	ARM 17.24.730 and 731	Provide that the revegetated area must furnish palatable forage in comparable quantity and quality during the grazing period as the reference area. If toxicity to plants or animals is suspected, comparative chemical analyses may be required.
	ARM 17.24.733	Provides additional requirements and measurement standards for trees, shrubs, and half-shrubs.
	ARM 17.24.751	Measures to prevent degradation of fish and wildlife habitat will be employed.
	ARM 17.24.761	Specifies fugitive dust control measures which will be employed during excavation and construction activities to minimize the emission of fugitive dust.
Air Quality Requirements	ARM 17.8.308(2), (3), and (4)	Airborne particulate matter. There shall be no production, handling, transportation, or storage of any material, used of any street, road, parking lot, or operation of a construction site or demolition project unless reasonable precautions are taken to control emissions of airborne particles. Emissions shall not exhibit an opacity exceeding 20% or greater averaged over 6 consecutive minutes.
	ARM 17.8.604	Lists certain wastes that may not be disposed of by open burning, including oil or petroleum products, RCRA hazardous wastes, chemicals, and treated lumber and timbers. Any waste which is moved from the premises where it was generated and any trade material may be open burned only in accordance with the substantive requirements of ARM 17.8.611 and 612.
	ARM 17.8.304(2)	Visible air contaminants. Emissions into the outdoor atmosphere shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.

Air Quality Requirements (continued)	ARM 17.8.308	Requires that any new source of airborne particulate matter that has the potential to emit less than 100 tons per year of particulates shall apply best available control technology (BACT); any new source of airborne particulate matter that has the potential to emit more than 100 tons per year of particulates shall apply lowest achievable emission rate (LAER).
	ARM 17.8.315(1)	Nuisance or odor bearing gases. Gases, vapors and dusts will be controlled such that no public nuisance is caused.
	ARM 17.24.761(2)(a), (e), (h), (j), and (k)	Fugitive dust control measures such as (1) watering, stabilization, or paving of roads, (2) vehicle speed restrictions, (3) stabilization of surface areas adjoining roads, (4) restriction of travel on other than authorized roads, (5) enclosing, covering, watering, or otherwise treating loaded haul trucks, (6) minimizing area of disturbed land, and (7) revegetation, must be planned and implemented, if any such measures are appropriate for this response action.
Noxious Weeds	§ 7-22-21001(7)(a), MCA	Defines “noxious weeds” as any exotic plant species established or that may be introduced in the state which may render land unfit for agriculture, forestry, livestock, wildlife, or other beneficial uses or that may harm native plant communities and that is designated: (i) as a statewide noxious weed by rule of the department; or (ii) as a district noxious weed by a board, following public notice of intent and a public hearing. Designated noxious weeds are listed in ARM 4.5.201 through 204 and must be managed consistent with weed management criteria developed under § 7-22-2109(2)(b), MCA.